

§ 75.706 Deenergized underground power circuits; idle days—idle shifts.

[STATUTORY PROVISIONS]

When not in use, power circuits underground shall be deenergized on idle days and idle shifts, except that rectifiers and transformers may remain energized.

Subpart I—Underground High-Voltage Distribution

§ 75.800 High-voltage circuits; circuit breakers.

[STATUTORY PROVISIONS]

High-voltage circuits entering the underground area of any coal mine shall be protected by suitable circuit breakers of adequate interrupting capacity which are properly tested and maintained as prescribed by the Secretary. Such breakers shall be equipped with devices to provide protection against under-voltage grounded phase, short circuit, and overcurrent.

§ 75.800–1 Circuit breakers; location.

Circuit breakers protecting high-voltage circuits entering an underground area of any coal mine shall be located on the surface and in no case installed either underground or within a drift.

§ 75.800–2 Approved circuit schemes.

The following circuit schemes will be regarded as providing the necessary protection to the circuits required by § 75.800:

- (a) Ground check relays may be used for undervoltage protection if the relay coils are designed to trip the circuit breaker when line voltage decreases to 40 percent to 60 percent of the nominal line voltage;
- (b) Ground trip relays on resistance grounded systems will be acceptable as grounded phase protection;
- (c) One circuit breaker may be used to protect two or more branch circuits, if the circuit breaker is adjusted to afford overcurrent protection for the smallest conductor.

§ 75.800–3 Testing, examination and maintenance of circuit breakers; procedures.

(a) Circuit breakers and their auxiliary devices protecting underground high-voltage circuits shall be tested and examined at least once each month by a person qualified as provided in § 75.153;

(b) Tests shall include: (1) Breaking continuity of the ground check conductor, where ground check monitoring is used; and

(2) Actuating at least two (2) of the auxiliary protective relays.

(c) Examination shall include visual observation of all components of the circuit breaker and its auxiliary devices, and such repairs or adjustments as are indicated by such tests and examinations shall be carried out immediately.

§ 75.800–4 Testing, examination and maintenance of circuit breakers; record.

The operator of any coal mine shall maintain a written record of each test, examination, repair, or adjustment of all circuit breakers protecting high voltage circuits which enter any underground area of the coal mine. Such record shall be kept in a book approved by the Secretary.

[35 FR 17890, Nov. 20, 1970, as amended at 60 FR 33723, June 29, 1995]

§ 75.801 Grounding resistors.

[STATUTORY PROVISIONS]

The grounding resistor, where required, shall be of the proper ohmic value to limit the voltage drop in the grounding circuit external to the resistor to not more than 100 volts under fault conditions. The grounding resistor shall be rated for maximum fault current continuously and insulated from ground for a voltage equal to the phase-to-phase voltage of the system.

§ 75.802 Protection of high-voltage circuits extending underground.

- (a) Except as provided in paragraph (b) of this section, high-voltage circuits extending underground and supplying portable, mobile, or, stationary high-voltage equipment shall contain either a direct or derived neutral which